

**National Sun Yat-Sen University**  
**ASSEMBLY LANGUAGE AND MICROCOMPUTER**  
**Program Assignment #3**  
**Due 11:59 PM Jan 6 2022**

<**Programming Problem III**> Write an ARM assembly code *int2float* to print out the binary IEEE-754 single-precision representation of the given input decimal integer number. For example, when you execute the *int2float* program as follows:

**arm-none-eabi-run int2float 1995**

Then the screen should show the following results:

**1995 is coded by 01000100111110010110000000000000.**

If you execute program as follows:

**arm-none-eabi-run int2float N1995**

Then the screen should show the following results:

**-1995 is coded by 11000100111110010110000000000000.**

When the string argument following *int2float* starts with the capital N, it represents this remaining string corresponds to a negative integer number.

You don't need to consider those special floating point representations including **Zero**, **Infinity**, **NaN**, and **Denormalized** numbers.